**Lesson Plan**

**Topic: Water Unit** Tienna Francisco

**Activity: Water & Ice** Grade Level: Pre-K

**OBJECTIVE:** Children will be able to understand that water changes depending on how warm or cold it is.

Essential Question: What does water do?

Focus Question: What happens to water when it changes temperature?

Vocabulary words: freeze, ice, water, melt, liquid, predict

**PROCEDURE**:

**Hook:** (Large Group 5-7 minutes) Show children water and ice. Ask, “What do you know about water? What do you know about ice?”

Beginning: (Same Large Group 5-7 minutes) Ask the following questions to elicit the ideas that ice is formed when water gets very cold and that ice can return to the liquid state (water) when it warms up: Where does ice come from? Where does water come from? How can you make ice? How can you turn ice into water? When we go into small groups we will talk more about water and ice.

**Middle**: (Small Group Activity, 15 minutes, procedure below)

Facilitate a discussion between the children about how to melt the ice. If possible, allow the children to try to melt the ice using the strategies they suggested.

**End**: (Large Group 5-7 minutes): Verbally summarize the children’s discussions and attempts to melt the ice.

**Water and Ice Activity:** (Small Group of 3-5 children, 15 minutes each group)

Materials: Water & Ice Tray or container (to hold melting ice)

Objective: Children will discuss the changes in state of water from solid to liquid.

Bloom’s Taxonomy: Children will understand that water changes depending on how warm or cold it is. Children will analyze their observations by comparing and contrasting the ice melts/changes to liquid.

Procedure: Discuss water and ice with the children. What do they know about water? What do they know about ice? What do they know about the relationship between water and ice? After discussing the relationship between water and ice, provide ice for the children to explore. Ask about melting and what happens when ice melts. Ask children to think of ways to melt the ice and facilitate a discussion among the group about how to melt ice. Ask to predict what will happen when we use their ideas to melt the ice. Implement the children’s suggestions for melting if possible.

**Differentiation**:

For children who need additional support: Some children may be uncomfortable touching ice and/or water. These children may observe rather than handle the ice and/or water. For example, repeat directions, extend time, adapt materials, preview questions, and provide 1:1 support

For children who are ready for a challenge: After discussing how to melt the ice to create water, engage these children in a discussion about how to turn water back into ice. Invite them to test their hypotheses.

English Language Learners: Have translation if possible for ELL children. Have ELL children draw on their prior experiences with ice and frozen objects such as frozen treats (e.g., popsicles, ice cream) and discuss their experiences with these items.

Assessment/Rubric: Is the child able to participate in a discussion about melting ice? Assessment is recorded through work sampling collection. Evidence of children during lesson time will be noted to show they are proficient in the specific area of learning.

Teacher’s refection: What went well? Why? What will I do differently given what I have learned from observing children during this activity? Which children needed differentiation during this activity and how will I meet their needs moving forward?

Student Checklist for Small Group Assessment

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| Child’s Name: | Participates in discussion: | Number of exchanges in discussion: | Notes: |
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**New York State Prekindergarten Foundation for the Common Core Standards**

PK.Domain 2- Uses senses to assistant and guide learning.

PK.Domain 4-Demonstrates a growing receptive vocabulary.

PK.Domain 4-Demonstrates a growing expressive vocabulary.

PK.Domain 4- With guidance and support, participate in collaborative conversations with diverse partners about pre-kindergarten topics and texts with peers and adults in small and large groups.

PK.Domain 5- Asks questions and makes predictions based on observations and manipulation of things and events in the environment

PK.Domain 5-Uses senses to gather, explore, and interpret information.

**Standards Professional Development for Teachers**

1c. Professional development design is grounded in the New York State Learning Standards and student learning goals.

2d. Professional development provides differentiated instructional strategies to meet the needs of diverse learners.

3a. Professional development is based on current research in teaching, learning, and leadership.

5a. Professional development focuses on developing educators’ knowledge of the learning styles, needs, and abilities of their students, as well as the diverse cultural, linguistic, and experiential resources that their students bring to the classroom.

5c. Professional development provides opportunities for educators to examine their practice in setting and maintaining high expectations for all students to enable them to attain high levels of achievement.